

1 **ABSTRACT**

2 Various embodiments of the invention address two critical problems that  
3 current email service providers face. First, there is the problem of maintaining  
4 high levels of customer service when email server systems are inundated with  
5 spam. Second, there is the problem of reducing the system-wide impact that spam  
6 has on the email delivery system. Current embodiments are directed to  
7 determining whether an email message is an unwanted bulk email message  
8 without necessarily considering the message that is conveyed by any portion of the  
9 email message. Through analyses of patterns of delivery of these email messages,  
10 profiles are built that allow an email server to ascertain whether there is a  
11 likelihood that any one particular email message constitutes an unwanted email  
12 message. If an email message is determined to likely constitute an unwanted  
13 email message, then memory-saving measures are implemented. In preferred  
14 embodiments, one copy of the email message is saved at a central, shared location  
15 that can be accessed by each of the intended recipients. This avoids having to  
16 replicate the email message across the system for each of the recipients.  
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